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AVIATOR'S AEROBOARD MICROPHONE REST

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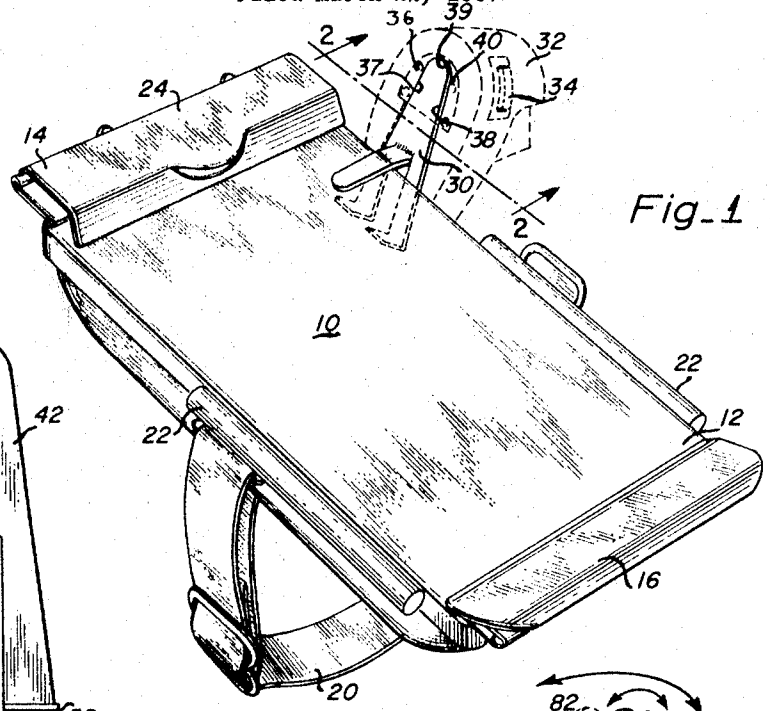


Fig_1

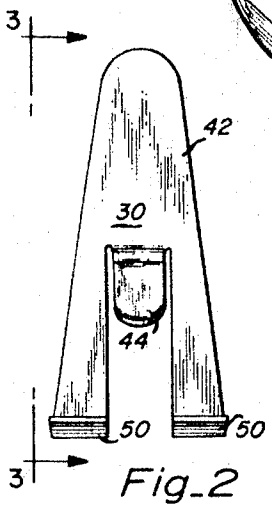


Fig_2

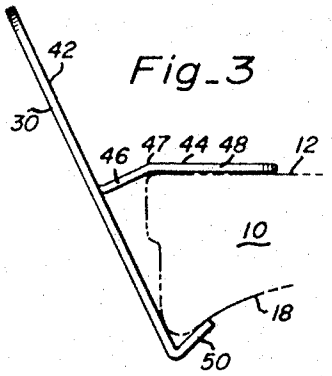


Fig_3

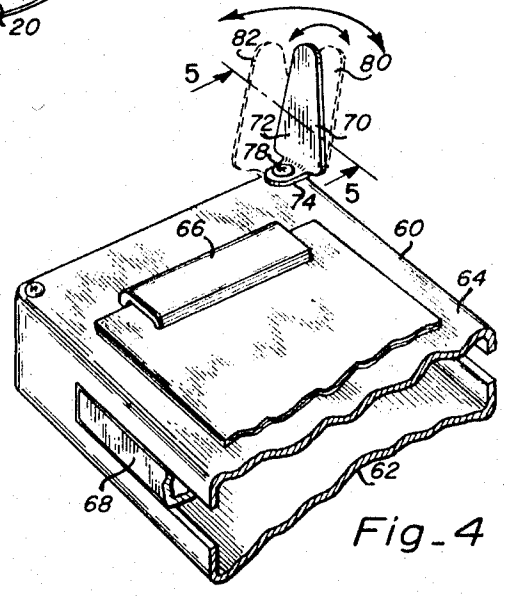


Fig_4

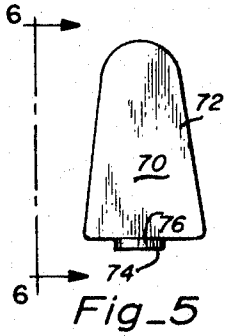


Fig_5

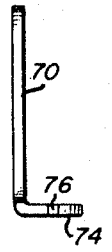


Fig_6

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AVIATOR'S AEROBOARD MICROPHONE REST

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ABSTRACT OF THE DISCLOSURE

A rest for an aviator's microphone which is secured to an aeroboard fastened to the aviator's leg. The microphone rest has an upper portion shaped and positioned to be engaged by the resting nest of a conventional handheld microphone and a lower portion by which the microphone rest is secured to the aeroboard.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates to means for supporting a conventional aviator's handheld microphone in a position where it is readily accessible when the need for communication arises, particularly during periods of peak communication activities and, more particularly, to a microphone rest affixed to a portion of a conventional aeroboard which is generally secured to an aviator's limb.

Description of the prior art

One of the most difficult and demanding problems facing the aviator today, when flying under IFR conditions, is the need for almost constant communication with traffic control during moments of peak cockpit activities. This is particularly true for the general aviation pilot flying a small aircraft who handles both the control of the aircraft and the communication with traffic control.

For example, during an instrument departure or landing, instructions are continually received and must be promptly acknowledged requiring the pilot to remove the microphone from its rest, make his communication, and thereafter replace the microphone on its rest. During peak cockpit activities, removing and replacing the microphone can seriously interfere with the safe piloting of the aircraft and the more conveniently the microphone rest is located for ready removal and replacement, the safer will be the operation of the aircraft.

Heretofore, the microphone rest is conventionally disposed either in the center of the cockpit just below the control panel or on the side of the aviator's seat. Since either of these positions is out of the immediate sight of the aviator, it is necessary that the aviator "feel" his way with his hand to the place where the microphone rests for removing and replacing the same unless he moves his eyes from the instruments. During night operations, and because the conventional microphone rest position is not ordinarily illuminated, removal and replacement by feel is the rule since, even when the eyes are removed from the instruments, the microphone is ordinarily not seen. Since the act of removal and replacement of the microphone requires that the hand of the aviator be diverted from other duties, any minimization of the time necessary for this operation becomes then available for control of the aircraft, thereby enhancing the safety of the pilot, passengers and the aircraft. Further, by placing the microphone rest at a place within the immediate sight of the aviator, less time is required for the aviator to divert his eyes from the instruments, thereby again causing safer aircraft operation.

The general aviation pilot, under the circumstances outlined above, usually has an aeroboard strapped to the upper part of his leg which has a writing surface and a clip for holding writing material or maps whereby the aviator is able to write or record certain information. The aeroboard is much closer to the aviator's hand and more directly in the aviator's sight than the conventional microphone rest. Many of the conventional aeroboards further include their own source of illumination so that it can be illuminated for night flight. During daylight, the aeroboard is usually illuminated by the natural light in the cockpit.

It is therefore a primary object of this invention to provide a microphone rest which is more readily accessible, handling-wise and visually, to the pilot than the conventional rest usually found in the cockpit.

It is a further object of this invention to provide means for resting the microphone in a position which is closer to the hand of the aviator, whether it be the aviator's right or left hand, and which is at all times in plain view of the aviator.

It is another object of the present invention to rest the aviator's microphone on the person of the aviator for greater convenience in removing and replacing the same, particularly during periods of peak activties.

It is also an object of this invention to incorporate a microphone rest into an aeroboard so that an aviator has quick and ready access to the microphone, thereby utilizing the advantageous position of the aeroboard for an additional purpose not heretofore contemplated.

Summary of the invention

In accordance with the preferred embodiment of the invention, a standard is provided having an upper portion which is shaped and dimensioned to be engaged by the nest of a conventional handheld aviator's microphone and a lower portion which is attachable to an aviator's aeroboard. The standard is mounted close to the side and near the far end of the aeroboard so as not to interfere with the primary function of the aeroboard, namely, that of providing a substantially flat writing desk and a holding means for maps and approach plates.

Further objects and advantages of the present invention will become apparent to those skilled in the art to which the invention pertains as the ensuing description proceeds.

The features of novelty that are considered characteristic of this invention are set forth with particularity in the appended claims. The organization and method of operation of the invention itself will best be understood from the following description when read in connection with the accompanying drawings in which:

Brief description of the drawings

FIGURE 1 is a perspective view of one type of an aeroboard having a microphone rest, constructed in accordance with the present invention, clamped thereon and holding a microphone;

FIGURE 2 is a view of the microphone rest of FIGURE 1 taken along line 2—2 of FIGURE 1;

FIGURE 3 is an end view of the microphone rest of FIGURE 1 taken along line 3—3 of FIGURE 2 showing a portion of the aeroboard in phantom outline;

FIGURE 4 is a partial perspective view of another type of aeroboard having a microphone rest, constructed in accordance with an alternate embodiment of this invention, attached to one of its corners;

FIGURE 5 is a view of the microphone rest of FIGURE 4 taken along line 5—5 of FIGURE 4; and

FIGURE 6 is a view of the microphone rest of FIGURE 4 taken along line 6—6 of FIGURE 5.

Description of the preferred embodiment

Referring now to FIGURE 1 of the drawings, there is shown an aeroboard **10** which is of the type presently manufactured by Jeppesen & Co. Aeroboard **10** includes a top forming a working surface **12**, a pair of clamps **14** and **16** disposed on top and bottom of working surface **12** for securing writing material or maps to the working surface, a bottom having a lower surface **18** transversely curved to conform to the transverse curvature of the limb to which the aerobaord is to be attached, and a strap **20** for limb attachment. There are also provided a pair of tubes **22**, closed at one end, and extending along the sides of aeroboard **10** and form depositories for pencils. A lighting fixture, not shown, is available for mounting on the upper surface **24** of clamp **14** to illuminate working surface **12**. Aeroboard **10**, as so far described, is conventional and forms no part of the present invention.

Releasably clamped to aeroboard **10** is a microphone rest **30** for engaging the nest of a microphone **32**. Microphone **32** is of the conventional type including a microphone button **34**, an opening on the side not visible in the drawing into which the aviator speaks, and a standard nesting cradle **36** which includes a pair of tapered side walls **37** and **38** connected by a curved connecting wall **29** and an overlying cover plate **40** shown in phantom outline. The cavity formed between the parallel opposed surfaces defined by the rear surface of the microphone and the facing surface of cover plate **40**, with the tapered side walls **37** and **38** and connecting wall **39**, is referred herein as the nest.

Referring now more specifically to microphone rest **30**, illustrated in FIGURES 1, 2 and 3, it comprises an upper portion **42** in the form of a flat planar strip which is shaped and dimensioned for engaging the nest of microphone **32**. Microphone rest **30** also includes a central extension **44** which has a first portion **46** which extends substantially at a right angle to the main body of the rest (also referred to as the standard) and a second portion connected to the end of the first portion, and bend slightly downwardly to engage an overlying writing surface **12** of aeroboard **10**. Bend **47** in the central extension rests on the edge of aeroboard **10**. Microphone rest **30** also includes a pair of lower extensions **50** which extend substantially outwardly and slightly upwardly. Extension **50** is positioned and proportioned to engage the edge of transversely curved bottom **18** of aeroboard **10** in hugging relationship. Positioned in this manner it is readily seen that upper portion **42**, when the central and lower extensions engage the upper and lower edges of aeroboard **10** respectively, makes an angle of approximately between 15 and 35 degrees with the vertical, depending on the position of bend **47**, so that removal and replacement of microphone **32** can be made at an angle for greater convenience.

Microphone rest **30** is easily attached and removed from aeroboard **10** by rotating upper portion **42** about the point of engagement of lower extension **50** with the lower edge of aeroboard **10**. More particularly, by moving upper portion **42** to the left, as viewed in FIGURE 3, microphone rest **30** is readily disengaged, and by first hooking extension **50** to the lower edge of aeroboard **10** and thereafter moving upper portion **42** to the right, microphone **30** is easily engaged. This provision allows the aviator to attach and remove rest **30** at will and place it at any point on either side of aeroboard **10**.

In operation, microphone rest **30** is clamped on aeroboard **10**, just prior to the time maximum communication activity is expected, and microphone **32** is removed from its conventional cockpit rest and placed on upper portion **42**. When communication activity becomes light again, the microphone may be removed to its conventional cockpit rest and microphone rest **30** may either be left in place on aeroboard **10** or, if found more convenient, may be removed until such time as it is again needed.

Description of alternate embodiment

For aeroboards which do not have a transversely curved bottom, such as is in the case with aeroboard **60** shown in FIGURE 4 which is of the type manufactured by Aero Products Research, Inc., or for more permanently attachment, a microphone rest of slightly different configuration is utilized in accordance with the present invention.

Referring now to FIGURES 4–6, aeroboard **60** there shown has a flat bottom surface **62**, a writing surface **64**, a pair of clamps **66** of which only one is shown, a drawer **68** and a belt (not shown) for clamping the board to the aviator's leg. A microphone rest **70** is provided having an upper portion **72** which is similar in all respects to upper portion **42** of microphone rest **30**, and a lower portion **74** which takes the form of a single extension which is similar to portion **46** of extension **44** of microphone rest **30** and depends outwardly. There is provided further a means by which extension **74** can be attached to the upper surface of aeroboard **60** which may be in the form of an opening **76** as illustrated in the drawings, or may be a slot or some similar configuration which cooperates with some fastening means such as corner screw **78** of the aeroboard.

The angle between extension **74** and upper portion **72** may be selected to suit to allow angular engagement of the nest with rest **70**, an angularly disposed upper portion being shown in dotted outline at **80**. Further, upper portion **72** may be positioned to be parallel either to a side edge of aeroboard **60**, as illustrated in solid outline at **70** or in dotted outline at **80**, or may be positioned parallel to the end edge as illustrated by dotted outline at **82**. Of course, rest **70** may assume any intermediate reposition between the position shown at **80** and **82** if found desirable.

Further, instead of utilizing a corner screw **78** to fasten rest **70** to the aeroboard, it is to be understood that extension **74** may be clamped in place by some suitable clamping means attached to the aeroboard. Also, extension **74** may be incorporated into aeroboard **60** and have upper portion **72** attached thereto by a hinge so that upper portion **72** may be raised for use and lowered when not in use, this beging in the nature of a permanent attachment. A further alternative is that extension **74** be moved into a special slot provided in the aeroboard, either with or without a clamp. Other means of securing upper portion **72** to the aeroboard, either slidable or fixed, permanently or detachably, collapsible or rigid, will be obvious to those skilled in the art in the light of the teaching made herein.

While the above detailed description has shown, described and pointed out the fundamental novel features of the invention as applied to various embodiments, it will be understood that various omissions and substitutions and changes in the form and details of the device illustrated may be made by those skilled in the art, without departing from the spirit of the invention.

What is claimed is:

1. The combination with an aeroboard, incorporating means to be fastened to the limb of an aviator, of a microphone carrying standard which includes a lower portion engageable with a portion of the aeroboard for securing said standard to the aeroboard, said lower portion having an upper extension depending outwardly from the center of said standard and a lower extension depending outwardly from the lower end of said standard, said upper and lower extensions being positioned and proportioned to clampingly engage the aeroboard, and an upper portion in the form of a flat planar strip extending generally upwardly and being shaped and positioned for receiving the nest of a conventional handheld aviator's microphone whereby the microphone can be supported by the aeroboard.

2. The combination in accordance with claim **1** in which said upper extension is formed of a first portion substantially perpendicular and immediately adjacent said stand-

ard, a second portion, and a bend connecting the second portion to the outer end of said first portion, said second portion extending slightly downwardly from said first portion for engaging the upper surface of the aeroboard and said bend engaging the upper edge of the aeroboard to space said upper portion at an angle with respect to the aeroboard.

3. The combination in accordance with claim 2 in which said lower extension extends slightly upwardly to hug the lower edge of a transversely curved lower surface of the aeroboard.

4. An aviator's microphone rest for an aeroboard comprising: a standard having an upper portion at its upper end in the form of a flat planar strip extending generally upwardly which is shaped and dimensioned for engagement by the nest of a conventional handheld aviator's microphone; and a lower portion including a lower extension at its lower end extending generally outwardly and upwardly with respect to said upper portion and a central extension at its center extending generally horizontally and slightly downwardly, said lower and central extensions being positioned and proportioned to clampingly and detachably engage the lower and the upper edges of the aeroboard.

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